



IWA-200/IWA-220

IWH-301/IWH-201/IWM-302/IWM-202

Infrared Wall-mount Amplifier System

OPERATION MANUAL



CHIAYO ELECTRONICS CO., LTD.

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CHIAYO ELECTRONICS CO., LTD.

User's manual

Thank you for purchasing our infrared wireless microphone system. Please be sure to read the manual thoroughly and keep it for future reference.

Cautions

Do not cover the infrared emitter area of the wireless microphone or the surface of the infrared sensor, which may disturb the unit and cause abnormal operation.

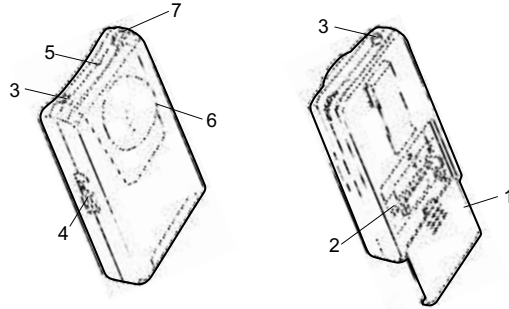
Since the unit uses infrared reflectance. Do not expose receiver to the black ceiling or wall which may cause abnormal operation.

1. Do not have the microphone near the speaker because it may cause howling.
2. Do not drop and wet microphone.
3. Do not replace the battery when power is not off.
4. Do not install the unit near heat source or in a place subject to direct sun-light, excessive dust, mechanical vibration or shock.
5. Do not use two A or B channels at same time because it may cause abnormal operation.

Beltpack Transmitter IWM-202

Parts and functions

- 1.battery cover
- 2.power high/low switch
- 3.lavalier or headset microphone input
- 4.power
- 5.power indicator
- 6.infrared emission source
- 7.volume control



Operating procedures

- 1.Open battery cover and put 2*AA alkaline batteries.
- 2.Connect with lavalier or headset microphone input.
- 3.Power the transmitter to make the power indicator turn green. If red or remaining off, it means power shortage or no power. Please replace with new batteries.
- 4.Adjust amplifier volume control.
- 5.Never cover with infrared emission source.

Custom made rechargeable Ni-MH battery

- 1.This battery is exclusively designed for the infrared wireless microphone.
- 2.Be sure to charge the attached battery before use.
- 3.For surely you do not recharge the battery before full discharge.
- 4.Keep clean the terminal of charge, otherwise you may not charge the battery.
- 5.Do not repeatedly recharge the battery before full discharge, if you repeat above, battery life will be shortened.
- 6.Battery life about 1 year or 500 recharge cycles under normal operation, when you feel operating time becomes shorter even full charging, the battery is exhausted.
- 7.Replace with new battery.(Be sure to use exactly same type as attached.)

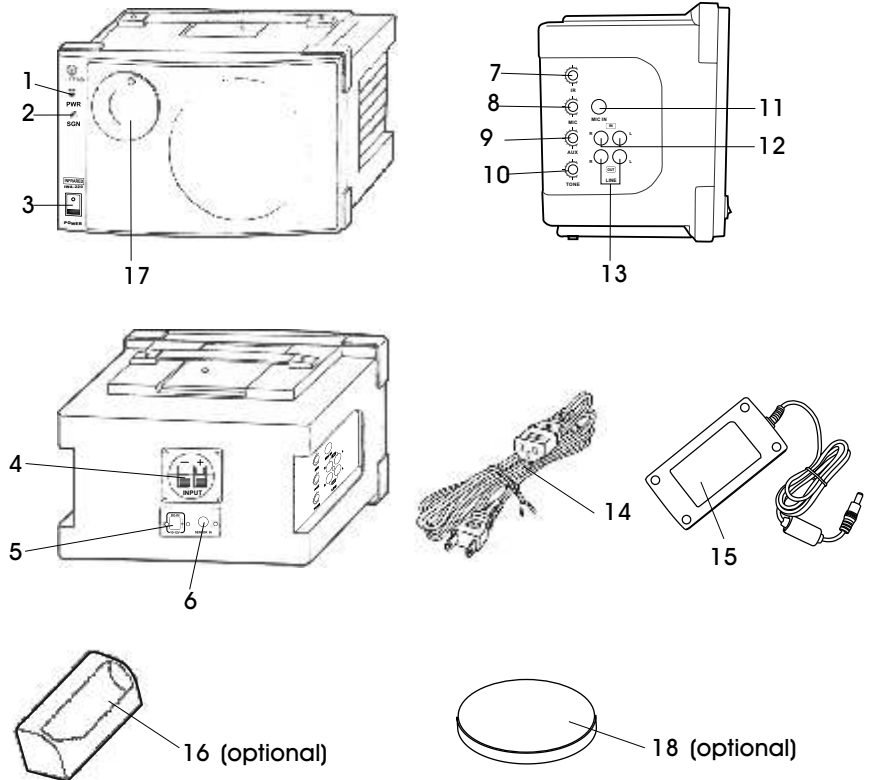
Battery operating time

Continuous operating time of fully charged Ni-MH battery(2100mA/2.4V) is as below.

position of power selector switch	Low	High
operating time	12 hours	8 hours

IWA-200/IWA-220

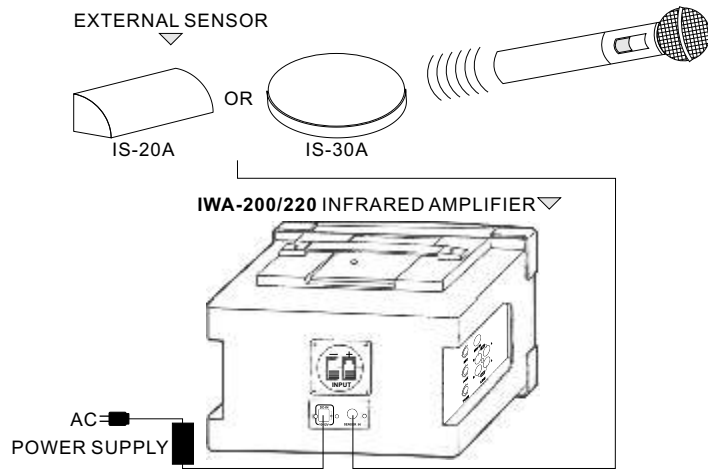
Parts and functions



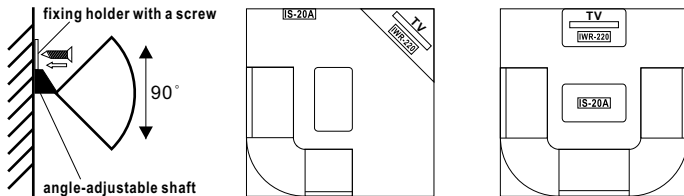
1. Power and IR1 indicator
2. Power and IR2 indicator
3. Power switch
4. External speaker input (8Ω load)
5. External DC supply input (12~15V)
6. External sensor input
7. IR volume control
8. Cabled microphone volume control
9. External input volume control

10. Treble and bass control
11. Cabled microphone input
12. External input signal R/ L
13. External output signal R/ L
14. Power cable
15. Power supply
16. External sensor(wall/ceiling-mount)
17. Infrared sensor
18. External sensor(ceiling-mount)

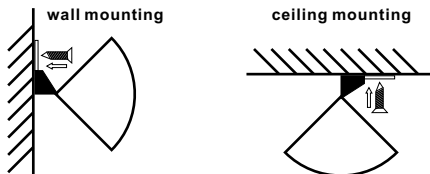
Connections



Installing the external sensor IS-20A(wall/ceiling-mount type)



1. Covering range of infrared rays.
2. Find the best position for sensor to be mounted as illustrated.
3. How to mount the infrared external sensor



- (a) Mount (Refer to illustration) the FIXING HOLDER (wall or ceiling) by using a screw provided or two double-coated tapes
- (b) Find the best position with wide view of the room. Mount the sensor along with the FIXING HOLDER on the wall or ceiling.

NOTE: POWER UP. The LED of infrared sensor will light up to red if not please consult with you nearest dealer.

Charging the batteries of IWM-302:



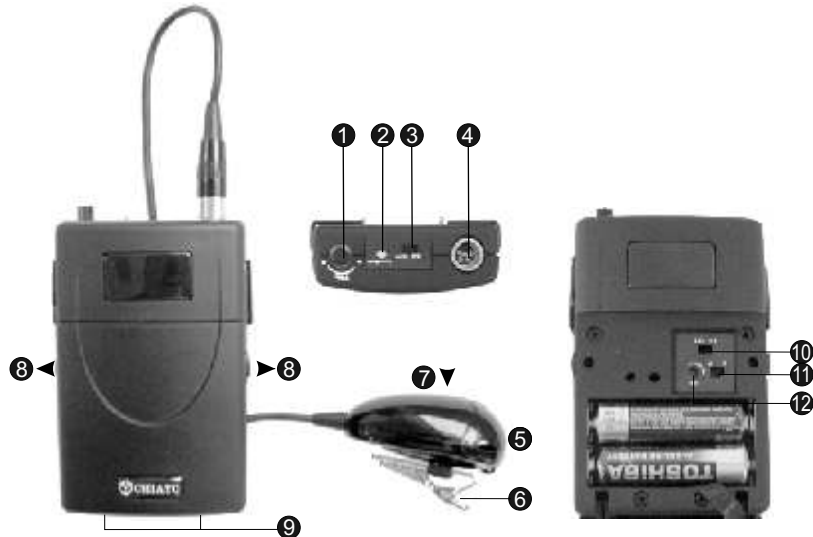
When IWM-302 is on, the LED glows Green to indicate enough power. If red or no light, the batteries might be weak or wrongly installed. Please check the installation polarity again.

IWM-302 can be recharged by HC-37. To charge IWM-302, switch it off and connect the adapter to a wall outlet. Slot IWM-302 into this charger and charging process will start automatically. During charging, the "CHG" LED (red) keeps lighting up until the "FULL" LED (green) lights up, meaning the batteries are full.

Please notice that this charger is specified to CHIAYO rechargeable batteries only. Batteries with other specifications might not cause the charger to work normally.

Beltpack Transmitter IWM-302

Parts and functions



- | | |
|---|------------------------------------|
| 1. Volume control | 7. Infrared emitter |
| 2. Power on / Battery-status indicator: | 8. Cover-release button |
| 3. Power switch | 9. Charging contacts |
| 4. 5-pin mini XLR connector | 10. Transmission-strength selector |
| 5. Lavalier microphone | 11. Channel selector |
| 6. Mic clip | 12. MT |

Making changes to settings in IWM-302

Channel changing

First open the cover of **IWM-302**'s battery compartment by pressing its release buttons on both sides. There are 2 channels for selection, namely "A" and "B". Either can be chosen by switching this selector(B).

MT adjusting

Low-impedance "MT" gain control is situated inside the battery compartment. It can be adjusted by using a small screw driver to rotate till a desired audio output level has been selected.

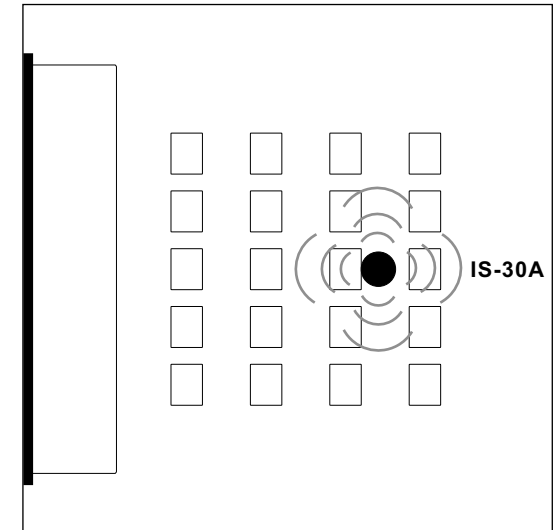
Battery installation

To install the batteries, first open the battery compartment by pressing the release buttons on both sides of the **IWM-302**. Batteries used are 2 pcs of NiMH 1.2V/2100 mAh type(rechargeable) or Alkaline type(not rechargeable). When inserting batteries, please place them according to the correct polarity.

Installing the external sensor IS-30A(ceiling-mount type)

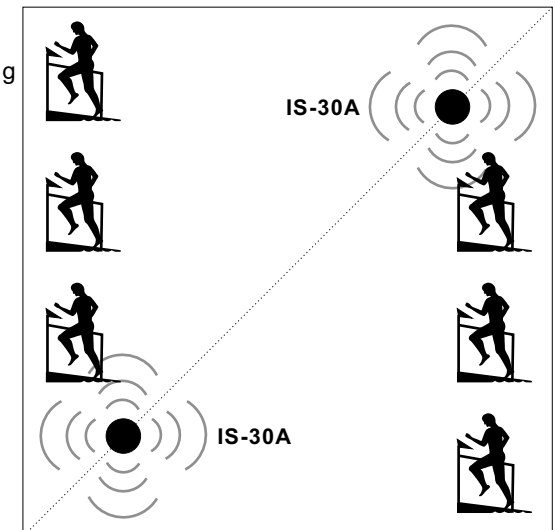
A. In an ordinary space such as a classroom

1. Locate the **IS-30A** sensor in the middle of the ceiling (as illustrated in right picture).
2. Connect the sensor cable to the **IWA-200/220** amplifier.
3. Turn on the IR amplifier system and operation can be started.

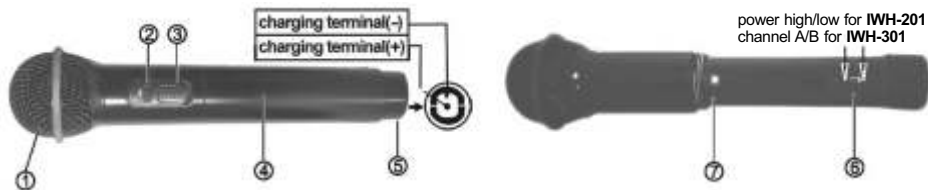


B. In a larger space such as a fitness center

1. Locate 2 or 3 **IS-30A** sensors on the suggested positions on the imaginary catercorner of the ceiling (as illustrated in below picture).
2. Connect all sensor cables to the **IWA-200/220** amplifier.
3. Turn on the IR amplifier system and operation can be started.



Handheld IR Transmitter IWH-201/IWH-301



Parts and functions

- 1.Grille cover.
- 2.Status LED: Bicolor LED will glow when switch is put to ON :
Green : Battery is full and transmitter is in normal mode.
Red : Battery is weak and will shut off soon. Please charge the battery.
- 3.Power switch Slide to turn microphone on or off.
- 4.Battery compartment.
- 5.Infrared emitter with charging contacts. IR ray radiates from here. Do not block or hold this part of the body.
- 6.Channel selector (**IWH-301**). A stands for 2.08MHz and B stands for 2.54MHz.
Power Selector Switch (Lo/Hi)(**IWH-201**)
This switch changes transmitting intensity of infrared ray. At Lo position transmitting distance is approx. 20M and at Hi position approx. 30M.
If transmission system may pick up some noise at Lo position.
It means the transmitting distance may be insufficient. Set the switch to Hi position.
Factory setting is Lo position.
At Hi power operation, operating time is approx. 8 hours.
At Lo power operation, operating time is approx. 12 hours.
- 7.Sensitivity control. Clockwise to increase sensitivity level. Factory preset is max level.

Battery installation/replacement

Turn the battery cover counterclockwise and pull out. As shown in figure. Make sure the power switch is in OFF position when installing or replacing batteries.And then install the new battery according to its correct polarity.

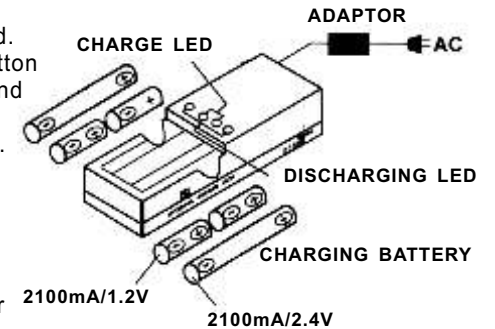
- Installing provided NiMH battery set
- Installing AA battery x 2 (with a provided battery sleeve)



Battery charger charging the battery (HC-10)

Operation:

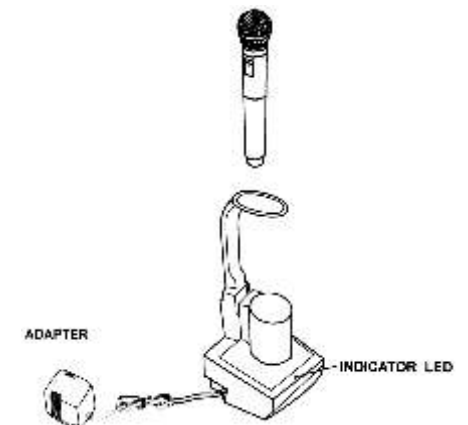
- 1.connect the DC plug of the adapter to the DC socket of the charger.
- 2.During charging the indication lamp is Red.
- 3.Each press on CHARGE/ DISCHARGE button switches between DISCHARGE(yellow) and CHARGE(red).
- 4.When full charge , (Green) and sounded .
- 5.When connecting the charging plug to the ring output socket of the charger, the right charger's trough could be an external charger.
- 6.The full charge capacity is 700mAH.
- 7.It can be charged with 4 x2100mA/ 1.2V or 2 x2100mA/ 2.4V.



Handheld mic charger holder(HC-20)

Operation:

- 1.Connect the Adapter to a wall outlet.
- 2.Insert an infrared wireless microphone to the charger.
- 3.The red LED of charger will light up during charging. Charging time will be approx. 3.5 hours.
- 4.When charging is completed, the green LED indicator will turn on and red LED off.
- 5.Rechargeable battery has to be exactly the same type as attached only. When other type of battery is installed in microphone, you can not charge the battery.



NOTE: Be sure to use specified battery only. You can not charge other types of battery. Do not use any battery and battery charger other than specified.